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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,426	02/23/2004	Ru-Shang Wang	915-005.062-1	8590

4955 7590 12/22/2008

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EXAMINER	
HOLDER, ANNER N	

ART UNIT	PAPER NUMBER
2621	

MAIL DATE	DELIVERY MODE
12/22/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/785,426	WANG ET AL.	
	Examiner	Art Unit	
	ANNER HOLDER	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07/18/08*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *05/27/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 27-32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 27-32 recite "video information" which does not impart functionality to a computer or computing device, and is thus considered nonfunctional descriptive material. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se. Non-functional descriptive is non-statutory regardless of whether it is claimed as residing on a computer readable medium.

2. Claims 1-6 and 25 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent and recent Federal Circuit decisions indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claims recite a series of steps or acts to be performed, the claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example there is no device recited within the claims to accomplish the method claimed.

Claim Objections

3. Claims 19-24 and 27-32 are objected to because of the following informalities: Applicant's specification fails to disclose the computer readable media or medium used to store program code. Appropriate correction is required.

Response to Arguments

4. Applicant's arguments, see pages 12-16, filed 07/18/08, with respect to the rejection(s) of claim(s) 1-34 under 35 U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Dalby et al. US 6,002,440 and Boyce et al. US 2006/0126733 A1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-3, 6, 7-9, 12, 13-15, 18, 19-21, 24, and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dalby et al. US 6,002,440.

7. As to claim 1, Dalby teaches forming at least one switching frame into said bitstream; [figs. 3-4; col. 5 lines 32-53] arranging macroblocks of said switching frame into a first group of macroblocks and a second group of macroblocks; [col. 5 lines 32-53] encoding each macroblock of said first group of macroblocks by a first encoding method to provide a switching point for continuing transmission of video information with another

bitstream formed from the video information; [figs. 3-4; col. 5 lines 41-53] and encoding macroblocks of said second group of macroblocks by another encoding method. [figs. 3-4; col. 5 lines 41-53; col. 6 lines 12-40]

8. As to claim 7, see rejection of claim 1 above.

9. As to claim 13, see rejection of claim 1 above.

10. As to claim 19, see rejection of claim 1 above.

11. As to claim 27, see rejection of claim 1 above.

12. As to claim 2, Dalby teaches encoding said first group of macroblocks by an intra encoding method. [col. 4 lines 56-65]

13. As to claim 8, see rejection of claim 2 above.

14. As to claim 14, see rejection of claim 2 above.

15. As to claim 20, see rejection of claim 2 above.

16. As to claim 28, see rejection of claim 2 above.

17. As to claim 3, Dalby teaches encoding said second group of macroblocks by a predictive encoding method. [col. 5 lines 4-27]

18. As to claim 9, see rejection of claim 3 above.

19. As to claim 15, see rejection of claim 3 above.

20. As to claim 21, see rejection of claim 3 above.

21. As to claim 29, see rejection of claim 3 above.

22. As to claim 6, Dalby teaches forming an intra encoded frame from a frame of said set of frames, forming switching predictive encoded frame from a frame following said intra encoded frame, and forming said at least one switching frame from a frame following said switching predictive encoded frame. [figs. 3-4; col. 5 lines 32-53]

23. As to claim 12, see rejection of claim 6 above.

24. As to claim 18, see rejection of claim 6 above.

25. As to claim 24, see rejection of claim 6 above.

26. As to claim 32, see rejection of claim 6 above.

27. As to claim 33, Dalby means for forming at least one switching frame into said bitstream; [figs. 2-4; col. 5 lines 32-53; col. 4 lines 13-42] grouping means for arranging macroblocks of said switching frame into a first group and a second group of macroblocks; [figs. 2-4; col. 5 lines 32-53; col. 4 lines 13-42] first encoding means for encoding each macroblock of said first group of macroblocks by a first encoding method to provide a switching point for continuing transmission of video information with another bitstream formed from the video information; [figs. 2-4; col. 5 lines 32-53; col. 4 lines 13-42] and second encoding means for encoding macroblocks of said second group of macroblocks by another encoding method. [figs. 2-4; col. 5 lines 32-53; col. 4 lines 13-42]

28. As to claim 34, Dalby an input for inputting information on an encoding method of a group of macroblocks; [figs. 2-4; col. 5 lines 32-53; col. 4 lines 13-42] first prediction block configured for decoding each macroblock of said group of macroblocks by a first

decoding method corresponding to a first encoding method when said information indicates that said group of macroblocks have been encoded by the first decoding method; [figs. 1-2; col. 4 lines 13-42; col. 8 lines 11-25] and second prediction block configured for decoding each macroblock of said group of macroblocks by a second decoding method corresponding to a second encoding method when said information indicates that said group of macroblocks have been encoded by the second decoding method. [figs. 1-2; col. 4 lines 13-42; col. 8 lines 11-25]

29. Claims 4-5, 10-11, 16-17, 22-23, 25-26, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dalby et al. US 6,002,440 in view of Boyce et al. US 2006/0126733 A1.

30. As to claim 4, Dalby teaches the arranging of frames in accordance to frame type.

Dalby does not explicitly teach slices.

Boyce teaches slices. [¶ 0049]

It would have been obvious to one of ordinary skill in the art to incorporate the teachings of Boyce with the device of Dalby allowing for the reduction of errors and artifacts during video transmission.

31. As to claim 10, see rejection of claim 4 above.

32. As to claim 16, see rejection of claim 4 above.

33. As to claim 22, see rejection of claim 4 above.

34. As to claim 30, see rejection of claim 4 above.

35. As to claim 5, Dalby (modified by Boyce) teaches forming at least a first switching frame and a second switching frame into said bitstream, the switching frames being divided into mutually similar groups of macroblocks with each macroblock of the first switching frame having a spatially respective macroblock in said second switching frame; [Dalby - figs. 2-4; col. 5 lines 32-53; col. 4 lines 13-42; Boyce - ¶ 0049] arranging macroblocks of said first switching frame into a first group and a second group of macroblocks; [Dalby - figs. 2-4; col. 5 lines 32-53; col. 4 lines 13-42] arranging macroblocks of said second switching frame into a third group and a fourth group of macroblocks so that the macroblocks of said third group of macroblocks are spatially different macroblocks than the macroblocks of said first group of macroblocks; [Dalby - figs. 2-4; col. 5 lines 32-53; col. 4 lines 13-42; Boyce - ¶ 0049] encoding each macroblock of said first group and said third group of macroblocks by a first encoding method to provide a switching point for continuing the transmission of video information with said other bitstream formed from the video information; [Dalby - figs. 2-4; col. 5 lines 32-53; col. 4 lines 13-42; Boyce - ¶ 0049] and encoding macroblocks of said second group and said fourth group of macroblocks by another encoding method. [Dalby - figs. 2-4; col. 5 lines 32-53; col. 4 lines 13-42; Boyce - ¶ 0049]

36. As to claim 11, see rejection of claim 5 above.

37. As to claim 17, see rejection of claim 5 above.

38. As to claim 23, see rejection of claim 5 above.

39. As to claim 31, see rejection of claim 5 above.

40. As to claim 25, Martin teaches forming at least one switching predictive encoded frame into said bitstream by predictively encoding the macroblocks of the frame; [Dalby - figs. 2-4; col. 5 lines 32-53; col. 4 lines 13-42; Boyce - ¶ 0049] replacing part of the switching predictive encoded macroblocks with macroblocks encoded by an intra encoding method; [Dalby - figs. 2-4; col. 5 lines 32-53; col. 4 lines 13-42; Boyce - ¶ 0049] and transmitting a frame containing both predictively encoded macroblocks and intra encoded macroblocks instead of said switching predictive encoded frame. [Dalby - figs. 2-4; col. 5 lines 32-53; col. 4 lines 13-42; Boyce - ¶ 0049]

41. As to claim 26, see rejection of claim 25 above.

Conclusion

42. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chen et al. (US 7,046,910 B2); Wu et al. (US 6,804,301); Wilkinson (US 6,160,844); Le Roux et al. (US 6,618,438); Luthra et al. (US 6,434,195); Thoreau et al (US 6,393,057); Karczewicz et al. (US 6,765,693); Saunders et al. (US 6,529,555).

43. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANNER HOLDER whose telephone number is (571)270-1549. The examiner can normally be reached on M-Th, M-F 8 am - 3 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anner Holder/
Examiner, Art Unit 2621 12/10/08
/Tung Vo/
Primary Examiner, Art Unit 2621